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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,573

08/20/2003

Kenji Hayashi

116887

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25944 7590 03/27/2008

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EXAMINER

QUARTERMAN, KEVIN J

ART UNIT

PAPER NUMBER

2889

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/644,573

Applicant(s)

HAYASHI, KENJI

Examiner

Kevin Quarterman

Art Unit

2889

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 and 22-24 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment and remarks received 11 December 2007 have been entered and overcome the objection to claim 24.

### ***Allowable Subject Matter***

2. Claims 1-12 and 22-24 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter: Regarding independent claim 1, the prior art of record neither shows or suggests an electroluminescent device comprising, in addition to the other limitations of the claim, a second electrode having a surface including an inorganic oxide and a barrier layer having a second surface that includes an inorganic compound, the second surface of the barrier layer being in direct contact with the first surface of the second electrode.
4. The closest prior art of Ogura (US 6,924,594) to independent claim 1 teaches, in Figure 2, an electroluminescent device comprising first electrodes (202); electroluminescent layers (207) disposed over the first electrodes; a second electrode (208, 209) disposed over the electroluminescent layers and having a first surface (210) that includes an inorganic oxide (col. 7, ln. 44-47); and a barrier layer (211) having a second surface (210). However, Ogura fails to exemplify the second surface of the barrier layer being in direct contact with the first surface of the second electrode, as recited in independent claim 1. Due to their dependencies upon independent claim 1, claims 2-12 are also allowable.

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5. Regarding independent claim 22, the prior art of record neither shows or suggests an electroluminescent device comprising, in addition to other limitations of the claim, a second electrode including an inorganic oxide and a barrier layer including an inorganic compound, the inorganic oxide of the second electrode directly contacting the inorganic compound of the barrier layer.

6. The closest prior art of Ogura (US 6,924,594) to independent claim 22 teaches, in Figure 2, an electroluminescent device comprising first electrodes (202); electroluminescent layers (207) being disposed over the first electrodes; a second electrode (208/209) being disposed over the electroluminescent layers; and a barrier layer (210) including an inorganic compound. However, Ogura fails to exemplify the second electrode including an inorganic oxide, the inorganic oxide of the second electrode directly contacting the inorganic compound of the barrier layer, as recited in independent claim 22.

7. Regarding independent claim 23, the prior art of record neither shows or suggests an electroluminescent device comprising, in addition to other limitations of the claim, a second electrode including an inorganic oxide and a barrier layer disposed on the second electrode and including silicon compound, the inorganic oxide of the second electrode directly contacting the silicon compound of the barrier layer.

8. The closest prior art of Ogura (US 6,924,594) to independent claim 23 teaches, in Figure 2, an electroluminescent device comprising first electrodes (202); electroluminescent layers (207) disposed over the first electrodes; a second electrode being disposed over the electroluminescent layers; and a barrier layer (210) being

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disposed on the second electrode and including silicon compound (col. 7, ln. 44-47).

However, Ogura fails to exemplify the second electrode including an inorganic oxide, the inorganic oxide of the second electrode directly contacting the silicon compound of the barrier layer, as recited in independent claim 23.

9. Regarding independent claim 24, the prior art of record neither shows or suggests an electroluminescent device comprising, in addition to other limitations of the claim, a cathode including an inorganic conductive oxide and a barrier layer including an inorganic compound, the inorganic conductive oxide of the cathode directly contacting the inorganic compound of the barrier layer.

10. The closest prior art of Ogura (US 6,924,594) to independent claim 24 teaches, in Figure 2, an electroluminescent device comprising anodes (202); electroluminescent layers (207) disposed over the anodes; a cathode (208) being disposed over the electroluminescent layers; and a barrier layer (210) including an inorganic compound. However, Ogura fails to exemplify the cathode including an inorganic conductive oxide and the inorganic conductive oxide of the cathode directly contacting the inorganic compound of the barrier layer, as recited in independent claim 24.

### ***Response to Arguments***

11. Applicant's arguments have been fully considered and are persuasive. The rejection of claims 1-12 and 22-24 has been withdrawn.

***Conclusion***

12. This application is in condition for allowance except for the presence of claims 13-21 directed to an invention non-elected with traverse in the reply filed on 23 March 2005. Applicant is given TWO MONTHS or SIXTY DAYS from the date of this letter, whichever is longer, to cancel the noted claims or take other appropriate action (37 CFR 1.144). Failure to take action during this period will be treated as authorization to cancel the noted claims by Examiner's Amendment and pass the case to issue. Extensions of time under 37 CFR 1.136(a) will not be permitted since this application will be passed to issue.

13. The prosecution of this case is closed except for consideration of the above matter.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571)272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on (571) 272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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27 March 2008